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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/993,852	11/14/2001	Bonne W. Posma	84738.000002	7994

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EXAMINER

LEYKIN, RITA

ART UNIT

PAPER NUMBER

2837

DATE MAILED: 07/10/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/993,852

Applicant(s)

POSMA ET AL.

Examiner

Rita Leykin

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-43 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 17-43 is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☒ Claim(s) 11-16 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

## **DETAILED ACTION**

### ***Response to Remarks***

Due to new grounds for rejection all previous discussion is moot.

### ***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1 and 7 and 8 are rejected under 35 U.S.C. 102(b) as being anticipated by Hermansson US # 3,577,055.

With respect to claims 1, 7 and 10 in Fig. 1 Hermansson shows a DC motor that is used as a driving motor for a streetcar. The motor is connected to a direct current network 5, which is fed by rectifier 8, which is shown in conjunction with DC/DC power source, as in claim 10. During the regenerative braking the braking effect is controlled by ignition and extinction of the thyristor 4 (freewheeling diode). When the thyristor 4 is fired ("On") the motor 1 is short-circuited and the motor current increases. When the motor current is sufficiently high the thyristor 4 is blocked ("Off"), as it claimed in claim 7, and due to the motor circuit inductance the current flows on to other loads, such as other streetcars. By altering the relative connection time of the thyristor 4 it is possible to gradually alter the effective load resistance and thus the braking force, (see column 2, lines 7-54).

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With respect to claim 1, to place the thyristor 4 in "On" and "Off" positions will require the presence of a controller, even the controller is not shown. Hermansson in column 3, lines 16-22 teaches that embodiment has been shown schematically by omitting some of the elements.

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 2-6, 9 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hermansson US # 3,577,055.

The limitations of the base claim 1 have been discussed in the rejection in the paragraph above.

With respect to claims 2 and 9 the choice of power source being AC/DC power source or DC/DC power source is dictated by a design.

With respect to claim 3, in Hermansson the freewheeling diode is a thyristor 4. Modern technology provides variety of different types of well known switches including SCR's.

With respect to claims 4 and 5, bridge rectifiers comprising three phase rectifiers are well known.

With respect to claim 6, the connection of any controller to the source of power is obvious.

***Allowable Subject Matter***

5. Claims 17-41 are allowed.
6. Claims 11-16 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
7. The following is a statement of reasons for the indication of allowable subject matter:

Prior art listed in the attached PTO-892 form considered to be pertinent to the submitted application. However, none of the cited prior art teaches or suggests: in combination:

- A combination claimed controllable semiconductor switch connected in series with a DC power source and a chopper controller connected to the controllable semiconductor switch;
- A transformerless dual DC traction motor controller comprising a mode switcher for connecting two DC traction motors to a converter output in series in a first mode and connecting two DC traction motors to the output in circulating-current-free armature parallel configuration in a second mode;

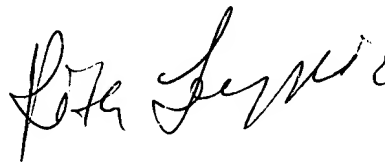
- A method for controlling two DC traction motors each motor having an armature and a field winding including connecting the field windings of the two DC traction motors in series, connecting the armatures of the DC traction motors to the series connected field windings and switching the armatures between a first series connected mode and a second circulating-current-free parallel mode.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rita Leykin whose telephone number is (703)308-5828. The examiner can normally be reached on Monday-Friday 8:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Nappi can be reached on (703)308-3370.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)308-0956.

Rita Leykin  
Primary Examiner  
Art Unit 2837



R.L.  
July 1, 2003